

Item Number 1: Model Photography Project (In progress) -

25X1A1a

The aim of 25X1B0C project, broadly stated, is to set up and use 25X1B0C facility for [REDACTED] This [REDACTED] is an essential tool to be used as part of studies now in progress to determine a number of key [REDACTED] system parameters.

25X1X3

As compared with the present simulation technique of photographing transparencies, the model approach offers the following advantages:

- a. Elimination of problems associated with the photographic quality of the transparencies.
- b. Flexibility in lighting conditions (haze and illuminations can be varied at will).
- c. Ability to investigate stereo and color.
- d. Ability to imitate interesting areas in model form.

The program is divided into two phases. Phase I can be considered a feasibility stage, while Phase II would be more of an operational period during which a library of photographs would be compiled. Objectives of Phase I would include the

25X1B0C [REDACTED] Once this [REDACTED] is selected the models can be constructed and then 25X1B0C photographed at realistic 25X1B0C scales and under realistic lighting. 25X1B0C [REDACTED]

25X1B0C [REDACTED] A determination will then be made as to whether or not the simulation is sufficiently realistic to justify the Phase II effort.

Attachment to DDS&T-3245-64

25X1B0c



The estimated cost of this program is as follows:

25X1A1a

Phase I (Now - Jan 65)
Phase II (Jan 65 - Jun 65)



25X1A1a
25X1A1a
25X1A1a

* Since [REDACTED] of this amount has already been committed from FY-65 SPS funds and [REDACTED] is available for commitment, the balance of funds required in Phase I is [REDACTED].

25X1A1a

Item Number II: Aerial Image Modulation Detectability Curves -



25X1A5a2
25X1A5a2

The object of this program is to measure the 3-bar target modulation detectability of [REDACTED] and [REDACTED] as a function of

- a. exposure,
- b. processing, and
- c. shape of modulation transfer function curve.

25X1A5a2
25X1A5a2
25X1A5a2

[REDACTED] and the [REDACTED] have conducted independent studies with a view toward determining aerial image modulation (AIM) curves for [REDACTED] but there are considerable and significant discrepancies between the curves they developed. Therefore, since an accurate estimate of the predicted resolution for the [REDACTED] depends on an accurate AIM curve, another independent attempt must be made to compile these data.

25X1X3
25X1A5a2

25X1A1a

It is proposed that the [REDACTED] be given a contract for approximately [REDACTED] to conduct this investigation.

Work on this effort would begin ASAP and continue through 1 February 1965.

25X1A1a

Item Number III: Photographic Presentation of Resolution -

The objective of this study would be the development and construction of briefing books [REDACTED] of photographic quality. This would be a key part of the final Phase I [REDACTED] presentation, and work must commence immediately if the material is to be ready by 1 February 1965.

25X1X3

25X1A5a2

25X1A1a

This project would start ASAP (also with [REDACTED] and run through February 1965 at an estimated cost of [REDACTED]

25X1A1a

Item Number IV: Titan III Utilization Studies -

The DCI has been asked by the Secretary of Defense to examine the Titan III missile with a view toward intelligence oriented utilization. In response to this requirement we propose to undertake a detailed study of the Titan III which would additionally tell us what operational parameters could be expected with this family of missiles in the [REDACTED] We anticipate that we will also explore possible utilization of the Titan III in the [REDACTED] programs.

25X1X3

25X1X3

25X1A1a

It is estimated that a two to three months program effort would be necessary, at a cost of about [REDACTED] This would include five full time engineers plus some computer time. Work would begin ASAP and continue through February.